

# PHYS 231 Syllabus, section 01

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Office location and hours: J-106-C

Class meets Monday through Thursday from 9:35am to 1:30pm in Room J-044  
For the Spring 2017 semester, class runs from Tuesday, May 9, to Monday, June 26

## Material Needed

The text books used in this course are as follows:

required: *Physics for Scientists and Engineers with Modern Physics* 3rd edition, Knight

required: enrollment in Mastering Physics online. Use this access code: SPRING3121

A scientific calculator (non-graphing) is required for this class, but a graphing is recommended.

## Assignment Objectives

This is a lecture and a lab class.

This class will consist of lecture and online based analytical homework in addition to lab work. Formal lab reports will be expected in this class, and then turned in at the beginning of the following class day where a lab is scheduled. Online based homework will be assigned regularly throughout the semester, and will be expected to be done outside of the scheduled class time. Homework assignments via Mastering Physics are expected to be completed by 11:30pm on the Sunday following the date the assignment is listed as due according to the tentative schedule.

## Course Objectives

The objective of this class is to develop a deeper understanding of the physical world around us. This class is heavily mathematically oriented, and general knowledge of algebra, geometry, trigonometry and calculus is required in order to fully grasp the concepts that will be presented in this course. The subject matter will focus around electricity, magnetism, optics, and if time allows, an introduction to nuclear physics. Successful students will demonstrate the ability to solve problems through the identification of an unknown quantity, the variables necessary to determine the unknown, and the physical principle which provides a relationship between the unknown and the variables. Successful students will also perform the above processes in a laboratory setting, which will include the measurement of variables.

## Prerequisites

Completion of MATH 180 with a C or better.

Completion of or concurrent enrollment in MATH 183 .

## Late Assignments

Late tests are accepted after the due date on a case by case situation, the primary exceptions being funerals, wedding, and hospitalization. Late lab reports are not accepted.

## Missed Exams

No makeup exams will be given unless there are extenuating circumstances such as illness, hospitalization, funerals, or weddings. Missed exams result in a score of zero for the exams missed.

## Drop policy

College Policy: Students who drop the course in the registrar's office on or before the official withdrawal date, yet after the last refund date are automatically assigned a grade of W. The last refundable day to

drop is May 10, 2017 where no record will appear on a transcript. The last date to withdrawal for the Spring semester is June 7, 2017. After the official withdrawal date, a W grade will not be given.

### Classroom Behavior

You

are expected to show courtesy and respect towards your fellow classmates at all times during class and lab. You are expected to come to class on time, prepared and with materials needed for the class and lab. If you know you need to leave early, sit as near to the door as possible so you can leave without disturbing other students. When the instructor or another student is talking, no side conversations should be taking place. This disturbs the students in your area. Food or drink is not allowed in the classroom or the lab room. This includes gum, mints, etc. Cell phones should be turned off when coming into class. Do not get up and leave class to answer calls or texts. This disturbs the people around you and the instructor. Students with disabilities who believe that they need accommodations in this class are encouraged to contact Assisted Learning Services at (313) 845-9617 as soon as possible to enhance the likelihood that such accommodations are implemented in a timely fashion.

### Grading Scale

grade	percent	points
A+	100	500
A	95-99	475-499
A-	90-94	450-474
B	84-86	420-435
B-	80-83	400-420
C+	77-79	385-399
C	70-76	350-384
D+	67-69	335-349
D	64-66	320-334
D-	60-63	300-319
E	0-59	0-299

assignments	points possible
10 homeworks	100 (10 each)
12 labs	120 (10 each)
Tests 1&3	80 (40 each)
Test 2 (midterm)	100
Test 4 (final exam)	100
<b>Total</b>	<b>500</b>

### Groups & Extra Credit

The class will be organized into groups which will work amongst their teammates in order to carry out lab experiments. Although they are working together, each individuals' lab work will be may be graded separately for some labs. Throughout the semester, physics related games or activities will take place where the groups compete against each other for a chance to earn extra credit points. All members of a winning team will earn an equivalent amount of extra credit points.

## Tentative Schedule

Date			Subjects Covered	Homework*	Tests	Labwork
Weekday	Month	Day				
Tuesday	May	9	Syllabus, Vectors and Introductions			
Wednesday	May	10	Kinematics			Lab1
Thursday	May	11	Kinematics	Hw 1		
Monday	May	15	Kinematics			Lab2&3
Tuesday	May	16	Dynamics			
Wednesday	May	17	Dynamics			Lab4
Thursday	May	18	Dynamics	Hw 2&3		
Monday	May	22	All thus far		test #1	
Tuesday	May	23	Circular Motion			
Wednesday	May	24	Work & Energy			Lab5
Thursday	May	25	Work & Energy	Hw 4&5		
Monday	May	29	No class!!!			Lab6
Tuesday	May	30	Impulse & Momentum			
Wednesday	May	31	Impulse & Momentum			Lab7&8
Thursday	June	1	All thus far	Hw 6	review	
Monday	June	5	All thus far		test #2 (Midterm)	
Tuesday	June	6	Angular Kinematics			
Wednesday	June	7	Angular Dynamics			Lab9
Thursday	June	8	Angular Dynamics	Hw 7		
Monday	June	12	Oscillation			
Tuesday	June	13	Oscillation			Lab10

Wednesday	June	14	All after Test #2		test #3	
Thursday	June	15	Thermodynamics	Hw 8		
Monday	June	19	Thermodynamics			Lab11
Tuesday	June	20	Fluids			
Wednesday	June	21	Fluids			Lab12
Thursday	June	22	All after test #2	Hw 9&10	Review	
Monday	June	26	All after test #2		Test #4(Final exam)	

**\*Homework is always due at 11:30pm Sunday night.**

## Academic Honesty

Henry Ford Community College considers academic dishonesty to be a serious offense. It is the policy of the College that determination of and appropriate action in respect to academic dishonesty by a student shall be a matter of individual judgment by the instructor. The instructor may administer a penalty up to and including failure in the particular course. It is the professional obligation of the faculty to enforce academic integrity in their courses. Academic dishonesty is any activity intended to improve a student's grade fraudulently.\* It includes, but is not limited to, the following:

1. Unauthorized acquisition of tests or alteration of grades (such as the stealing of tests, test keys, or grade books from faculty offices or elsewhere, or the purchasing of tests or grade books);
2. Unauthorized use of notes, books, or other prohibited materials during an examination;
3. Open cheating on an examination (such as copying from another student's paper);
4. Permitting another person to take a test in the student's place or receiving unauthorized assistance with any work for which academic credit is received;
5. Providing unauthorized assistance with any work for which academic credit is received;
6. Revision of graded work in an attempt to receive additional credit fraudulently;
7. Plagiarism (using another person's work without acknowledgment);
8. Any other conduct intended to obtain academic credit fraudulently or dishonestly.

If an instructor fails a student in a course for academic dishonesty, the instructor must immediately notify in writing the student and the registrar of the infraction, retaining copies of both notifications. The registrar maintains a record of all such violations. If a student fails two classes as a result of academic dishonesty, he or she is dismissed from the College for two academic years. In addition, a notation of the reason for academic dismissal is placed on the student's transcript. The notation may be expunged at the discretion of the appropriate vice president if the student petitions for its removal after at least two years have elapsed since the disciplinary action. If a student believes that the accusation is false, he or she may appeal through the Student Complaint Procedure. If the appeal reaches the Student Complaint Board, the Board may consider only whether the charge is justified. The Board may not set aside or change the penalty given by the instructor unless the charge of academic dishonesty is set aside.

\*Any action that violates the Student Conduct Policy and Due Process Procedure is also subject to review under that policy.

## **Student Conduct Policy (*Excerpted from the HFCC Catalog*)**

### ○ **RIGHTS AND RESPONSIBILITIES**

Students have the rights and accept the responsibilities of participating in an educational environment when they enroll at HFCC. Each student is expected to respect the rights of others and to help create an environment where diversity of people and ideas is valued. A collegiate community should be free from intimidation, discrimination, and harassment, as well as safe from violence. Students are also expected to know and obey federal and state laws and local ordinances, as well as be responsible for following College policies.

Students at HFCC have the same rights under the constitutions of our nation and state as other citizens. These rights include freedom of expression, press, religion, and assembly. Freedom of expression, for example, includes the expression of reasoned dissent and the voicing of unpopular views. With every freedom goes the responsibility of according the same right to others. All students have the right to be treated fairly and to have access to College policies. Students are entitled to appropriate due process should they be accused of behavior that is in violation of laws or College policy.

#### ■ **STUDENT CODE OF CONDUCT**

**A.** Students at HFCC are expected to show respect for order, law, the personal rights of others, and the educational mission of the College, as well as to maintain standards of personal integrity. **B.** Behavior or situations that violate these standards include, but are not limited to:

1. interference with normal College or College sponsored activities, including, but not limited to: teaching, College administration, and College Board meetings;
2. non-compliance with the directions of College personnel, including campus safety, or with the orders of any College board, such as the Student Center Board;
3. violation of accepted standards of decency;
4. discrimination against an individual or group in any activity, opportunity, or organization on the basis of race, ethnicity, gender, religion, sexual orientation, creed, national origin, ancestry, age, disability, height, weight, or marital status;
5. harassment that interferes with an individual's work or educational performance;
6. physical assault;
7. stalking;
8. threats of injury or harm;
9. arson;
10. theft;
11. gambling;
12. property damage;
13. possession of firearms or dangerous weapons;
14. possession, use, or distribution of alcohol or illegal drugs.

The complete text of this policy is available in the office of the Vice President/Dean of Student Services, 430A Administrative Services and Conference Center.

### ○ **Alcoholic Beverages and Illegal Drugs**

Use, possession, or distribution of alcoholic beverages and drugs is forbidden on campus. Persons appearing on campus while under the influence of alcoholic beverages, narcotics, and other dangerous drugs, except as expressly permitted by law, will be subject to disciplinary and/or legal action. Possession, consumption, sale, or purchase of any controlled substance which is illegal under state or federal law is prohibited on the campus of Henry Ford Community College.

#### **Campus Attire**

Students are expected to use good judgment, good taste, and decency with regard to their selection of dress.

## STUDENT ATTENDANCE POLICY

Regular class attendance is necessary if a student is to receive maximum benefit from classes. Students are expected to attend all the sessions of the classes in which they are enrolled, and absences in no way lessen student responsibility for meeting the requirements of the class. Penalties may be imposed, at the discretion of the individual instructors, whenever the quality of the student's work has been affected by absence or tardiness.

Students, as a matter of courtesy, should contact their instructors concerning absences. Lack of attendance may affect the student's final grade.

Absences in connection with participation in authorized college activities must be considered in the total picture of absences for all purposes, and it is the responsibility of the student to make up work missed.

Students are required to be present at the final examination. In case of absence, it is the student's responsibility to contact the instructor in regard to makeup.

## NEVER ATTENDED DESIGNATION

Since student success depends on active engagement, Henry Ford College requires students to actively participate in their learning with regular and sustained interaction. Students who have NOT actively participated in a class by the College's Never Attended deadline will not be permitted into that class even if they are enrolled in the class and will receive a Never Attended (NA) designation as the grade for the course.

- Every instructor must determine and clearly state in the course syllabus the requirements that must be met by the Never Attended Deadline in order for a student to avoid receiving a Never Attended (NA) grade on the student record. Online instructors must, in addition, clearly state a specific time on the Never Attended Deadline by which these requirements must be met.
- A Division can, with the approval of the faculty in that Division, develop a Division-wide policy toward this end.
- Note that merely attending class, obtaining a syllabus, or logging in to an online class will not necessarily be adequate to meet these requirements.
- For each class in which a student is enrolled, the student is responsible for knowing the requirements that must be met by the Never Attended Deadline in order to avoid receiving a Never Attended (NA) designation on the student record.

### Consequences of receiving a Never Attended (NA) grade:

- The grade for the course on the student record will be NA.
- The student will receive no credit hours for the class.
- The NA grade will negatively affect Satisfactory Academic Progress (SAP).
- The NA grade will negatively affect a student's ability to maintain and/or receive financial aid.

### An Open Letter to HFCC Science Students:

We have had a sudden increase in incidents of cheating among students in science courses. Cheating is defined in the Policy on Academic Dishonesty, and applies to tests, quizzes and exams, to in-class and out-of-class assignments, and to any other aspect of class for which you receive credit toward a grade. We consider cheating in class to be a very serious offense.

There are many ways students can cheat in class, some of which are quite sophisticated. Here are some recent examples of cheating on **Tests, Quizzes, or Exams**:

**Communicating, or appearing to communicate with another person:**

- Talking (no matter what you say)
- Passing notes (no matter what is on the note)
- Using suspicious signals of any sort (hand signals, tapping pencils, sniffing, etc.)
- Sharing calculators or other implements (no matter what is on it)
- Using cell phones, PDAs or similar items for any reason (even if it is only for the calculator function).
- Sharing any items your instructor allows individual students to bring into the exam.

**Sharing or appearing to share information:**

- Copying from another person's paper
- Allowing another person to look at your paper
- Looking at another person's paper
- Appearing to look at another person's paper

**Possessing a prohibited item or information (even if you do not use it):**

- Any notes you are not specifically permitted to bring with you
- Any permitted sheet that contains any nonpermissible information (e.g., your instructor says you may have only equations on an equation sheet and you have anything else written on it.)
- Notes written on your clothing, your body, or anywhere else (no matter what they say).
- Using calculators, etc. other than those specified by the instructor.

**Assisting other students:**

- Creating a diversion that allows other people to cheat by distracting the proctor.
- Passing information about an exam to students who have not yet taken it.
- Taking an exam for another student.

Contrary to popular belief, the proctor does not have to catch you in the act of cheating – they may discover it beforehand, later, or while grading. The same rules apply.

Students who cheat or assist others in cheating will be subject to academic penalties up to and including failure in the course. Incidents of cheating reported to my office will be forwarded to the Registrar for action. Two reports to the Registrar will result in your being debarred from the College.

Instructors have the duty to enforce general test-taking conditions to ensure the integrity of exams. They may use generally accepted security practices in carrying out this duty, including assigning seats, restricting access to the room, setting the rules for answering questions during the exam (or refusing to answer them), enforcing reasonable dress codes (e.g., no ball caps, no jackets, etc.), requiring photo identification, specifying exactly what items you are allowed to have with you at the exam, and examining any items you have with you (whether they are allowed or not). If you do anything that appears to be cheating, they have a duty to confiscate your exam and enforce the cheating policy without further notice.

You have been warned. If you don't do these things, you won't have a problem. If you do these things, you can't plead ignorance.

Janice Gilliland,

Associate Dean of Math and Science